

OPTIONAL ENVIRONMENTAL ASSESSMENT FORM
ENVIRONMENTAL ASSESSMENT NUMBER: OR-035-01-06
BLM Office: Baker Resource Area
Proposed Action Title/Type: Grouse Creek Stream Restoration
Location of Proposed Action: WM, T. 6 N., R. 43 E., Sec. 23 SE/NE
Conformance With Applicable Land Use Plan: This proposed action is subject to the following land use plan. Name of Plan: Baker Resource Management Plan Date Approved: 7/12/89 This plan has been reviewed to determine if the proposed action conforms with the land use plan terms and conditions as required by 43 CFR 1610.5.

Remarks: This project is within the Grande Ronde Geographic Unit. The resource objectives, as identified in the Baker RMP, for this area are to improve fair and poor anadromous habitat, and to improve riparian habitat conditions.

Need for Proposed Action: Fish passage has been impeded in Grouse Creek since a culvert was replaced after the 1996-97 floods washed out the road. Grouse Creek is currently utilized by steelhead as well as resident fishes. This project would improve fish passage, sustain surface water flows longer into the dry season, and re-establish vegetation within the riparian area of Grouse Creek.

General Setting: The project area is located at the mouth of Grouse Creek, a tributary to the Grande Ronde River, in Wallowa County, Oregon near the Oregon/Washington border. The culvert on Grouse Creek under the county road is approximately 160 feet from the Grande Ronde River. The project area is located between the River and the culvert along Grouse Creek.

Description of Proposed Action: The proposal is to re-align a short segment of Grouse Creek as close as possible to its historic site, and create rock structures that resemble a step-pool type stream environment. Planting of hardwoods and native grass seeding would also occur to re-establish native floodplain vegetation. This project is being done in conjunction with the Grande Ronde Model Watershed Project and the Wallowa County Public Works Department. Funding for the project is coming from the Bureau of Land Management (BLM) and the Grande Ronde Model Watershed Project. The Wallowa County Public Works Department is providing the equipment for the in-stream work.

During culvert installation after the floods that washed out the road, Grouse Creek was re-routed approximately 50 feet below the culvert at a right angle and

upstream into the Grande Ronde River. A berm was also created along one side of the stream channel. The proposed project would follow the existing channel below the culvert for approximately 50 feet, then remove the material that was deposited in the original channel by the flood and the berm that was constructed during culvert installation. Currently, there is only surface flow below the culvert along this 50 feet of channel (and there is only this flow during spring runoff, the rest of the year the entire reach between the culvert and the Grande Ronde River is dry). Continuous surface flow between the culvert and the Grande Ronde probably only happens during high flow events.

Where the channel was re-routed below the mouth of the culvert, the water goes subsurface. The water re-surfaces within 10 feet of the Grande Ronde River near where the mouth of Grouse Creek was before the flooding and subsequent deposition of alluvium. This project would re-establish the historic stream channel between the culvert and the Grande Ronde River. Total length of the stream channel between the culvert and the River is approximately 180 feet. Because of this relatively short distance, and the fact that there is almost 20 feet of vertical drop between the outlet of the culvert and the Grande Ronde, rock structures designed to imitate a step-pool channel will be needed to provide adequate fish passage for steelhead as well as resident fish.

The rock structures placed in the stream channel to create a step-pool morphology would provide channel stability, allow for the routing of flows and sediment that are delivered from the Grouse Creek watershed, and provide for an acceptable number of pools and jumps that fish can traverse to reach the stream channel upstream of the culvert. These rock structures will be constructed using an hydraulic excavator. Material removed to re-create the historic channel will be deposited in the existing channel so that the stream flow will be confined to the historic channel. The material placed in the existing channel will be contoured to match the topography of the surrounding floodplain.

As mentioned previously, the water below the mouth of the culvert currently goes subsurface for much of the year. This subbing of the water is caused by a number of conditions at the site including, but not limited to, the rip-rap that was placed below the culvert during installation, the fact that the stream channel was re-routed, and all of the unconsolidated material that was deposited during the flooding. Grouse Creek upstream of the culvert currently has surface flow for the majority of the year, however portions of the stream channel do dry up in hotter and drier than normal years. This was also most likely the case for the stream reach below the culvert, but the other factors described above have conspired to create a stream reach which is dry throughout much of the year. To help alleviate this problem and try to provide surface flows along the entire stream reach between the culvert and the Grande Ronde, a geotextile fabric will be placed underneath the rock structures to capture sediments and help seal the interspaces between the rock in the stream channel. This will cause less water to

go subsurface and more water to be available as surface flow in this short stream reach between the culvert and the Grande Ronde River.

From the problems mentioned above of rip-rap placed in the channel, the channel re-alignment, and the lack of surface flows, dead fingerling steelhead have been observed in the stream channel between the culvert and the Grande Ronde River. These fish were unable to successfully migrate between the river and the culvert because of the problems indicated. The migration problem impacts fish traveling upstream as well as downstream, as there does not appear to be any continuous flow between the culvert and the River except during high flow events.

Along the project area, approximately 100 potted trees will be planted adjacent to the stream channel, and native grass seed will also be planted. The potted trees will be planted with the excavator, and will be a mixture of alder, river birch, and cottonwood. Upstream of the culvert there will not be any in-stream work, however, there will be native grass seed planted. Also, alder seedlings will be propagated by the Baker High School nursery from seed collected on site, and will be planted upstream of the culvert within one to two years depending on when the seedlings reach an acceptable planting size.

Alternatives: The no action alternative would result in no rock structures or channel re-alignment being constructed. Fish passage and surface flow problems that are currently occurring would continue. No tree planting and/or seeding would occur to re-establish native vegetation with this project.

No other action alternatives were analyzed for this project.

Environmental Impacts:					
Critical Element	Affected		Critical Element	Affected	
	Yes	No		Yes	No
Air Quality	X		T & E Plants		X
ACECs		X	Tribal Concerns & Treaty Rights		X
Cultural Resources		X	Wastes, Hazardous/Solid		X
Environmental Justice		X	Water Quality, Drinking/Ground	X	
Farmlands, Prime/Unique		X	Wetlands/Riparian Zones	X	
Floodplains	X		Wild & Scenic Rivers		X
T & E Animals		X	Wilderness		X
T & E Fish	X				

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Description of Impacts:

Air Quality The excavator that would be used for moving rock and doing the in-stream work would raise some dust. This impact to air quality should be negligible in the immediate vicinity of the project area as the dust will quickly settle. There would be no long term impacts to air quality as construction of this project is only expected to continue for approximately one week.

Cultural Resources As this site has been previously disturbed by floods, culvert installation, and road building, no cultural resources will be impacted by the proposed project.

Floodplains This project is located within the floodplain of Grouse Creek as well as that of the Grande Ronde River. There will be some re-distribution of material near the mouth of Grouse Creek. Alluvial material and rip-rap that is currently in the historic channel will be moved to re-create the historic channel and fill in a portion of the existing channel, which was created when the culvert was replaced. Approximately 50 feet of the existing channel downstream of the culvert will be kept in its current state, with some rock structures added to create a step-pool configuration that will ensure a stable stream channel that fish can traverse. From this point, re-construction of the historic channel will take place, with the material that is removed from this area being deposited into the existing channel that will no longer be used. This material will be deposited to match the current topography of the floodplain.

After the channel construction and rock structures have been placed in the stream channel, planting of trees and native grass seeding will occur. Total area of disturbance to the floodplain will be less than one acre. Short term impacts from this floodplain disturbance may include an increase in sediment to Grouse Creek and/or the Grande Ronde River. This would be mitigated by the fact that there will be no water in the majority of the channel during construction, and the fact that the BLM will establish vegetation along the floodplain after construction. If a high flow event that reaches the floodplain occurs before the vegetation is established, a minimal increase in sediment from the disturbed area may occur. This increase in sediment should be negligible due to the fact that currently there is no vegetation on the floodplain currently (other than two groups of trees), and a flood happening now would most likely also add sediment from floodplain erosion to the mouth of Grouse Creek and the Grande Ronde River.

The two groups of trees that are for the most part the only vegetation, other than some weeds, along this area will be protected and will not be disturbed during construction of this project. Establishment of vegetation along this area would help improve the floodplain functionality and connectivity along Grouse Creek and the Grande Ronde River. Floodplain vegetation is important during high flow events to protect banks from erosion, provide roughness to decrease stream velocity, and capture sediments to replenish nutrients on the floodplain.

Wildlife Negligible impacts to wildlife would include displacement of salamanders and other amphibians along approximately 200 feet of stream channel. Wildlife species in the vicinity of the project area may be displaced during the time work is on-going due to the noise and human presence, but these species would return after work was completed. Due to the timing of the project (planned for August or September) and the short duration of construction no impacts to any nesting wildlife or supplanting of eggs would occur. After planting of trees and native grass seeding, wildlife habitat would be improved over what is currently available. There are no known listed Threatened or Endangered wildlife species within the project area and therefore, no impacts would occur to these species from the project work.

Fisheries The current condition at the mouth of Grouse Creek impedes fish passage due to the fact that the streamflow goes subsurface for most of the year and the presence of rip-rap that was placed at the mouth of the culvert. Dead fingerlings have been observed in the reach between the culvert and the Grande Ronde River. Grouse Creek is currently utilized by steelhead and resident fishes. The proposed project would provide for surface water flows longer throughout the year, and incorporate rock structures that would provide a step-pool habitat for which the fish could travel through to the upper reach of Grouse Creek. Adverse impacts to fisheries could include an increase in sediment to the mouth of Grouse Creek and into the Grande Ronde River at the confluence with Grouse

Creek. This increase is expected to be minimal due to the fact that Grouse Creek does not have surface flows at the mouth during the proposed construction time, and any sediment reaching the Grande Ronde River would be quickly diluted by the much larger flows of the River. Beneficial impacts to fisheries resulting from the enhanced flows and improved migration as well as the improvement in vegetation along the stream channel would more than offset the minimal impact from sediment that may result from the proposed project. Oregon Department of Fish and Wildlife in-stream work windows will be followed to ensure that construction is not happening during fish migration and/or spawning.

Water Quality Water quality may be minimally affected by the introduction of sediment into the stream channel during construction. This impact will be minimized by working during the dry season when flows are the lowest, and the fact that most of the channel where work will take place is dry. During the following Fall or Spring, there may be a small flush of sediment from the work site into Grouse Creek and/or the Grande Ronde River when the stream flow increases from Fall rains or Spring snowmelt. Any sediment from this area would be quickly diluted by the much larger flows of the Grande Ronde and any increase in turbidity would not be measurable. The planting of trees and seeding of the adjacent area should also help reduce any sediment from bare areas reaching the stream channel.

There is a small chance that a fuel or oil leak from the equipment on site may enter Grouse Creek and/or the Grande Ronde River. To address this hazard, Wallowa County Public Works Department (which will be providing the equipment for this project), will be required to have a spill containment plan in place with the appropriate materials and personnel to clean up any fuel or oil spills. Risk of any fuel or oil reaching Grouse Creek or the Grande Ronde will also be minimized by the timing of the project and the fact that where the stream channel where the work is proposed will be dry, so any spill could easily be cleaned up before it reaches open water.

Riparian No riparian vegetation will be disturbed as most of the work area is rock that was deposited as an alluvial fan during previous flood events. Currently, there are only two groups of trees in the project area. These trees will be protected from disturbance during the proposed work. After the in-stream work is completed, planting of trees and native grass seeding will occur, which will improve the riparian vegetation along the stream channel.

Cumulative Impacts:

Short term cumulative impacts of increased sediment may result from this project. These impacts should be minimal due to the fact that less than one acre

is being disturbed, the project work would take place in the summer when stream flows are lowest, there most likely will not be any surface water flowing in Grouse Creek in the project area, and the fact that vegetation will be re-established on the project area to help reduce any erosion.

Beneficial cumulative impacts would include re-establishment of native vegetation on approximately one acre of floodplain, enhanced fish passage to Grouse Creek upstream of the culvert, and increased surface flows for the short stream reach between the culvert and the Grande Ronde River.

Description of Mitigation Measures and Residual Impacts:

Project construction will take place during ODFW instream work windows, which for the project area are currently July 1 to September 15.

Walla County Public Works Department will be required to have a spill containment plan in place and appropriate equipment and materials on site in the event of any fuel or oil spills.

During earth moving portions of the project, care will be taken to not place any material near the stream bank of the Grande Ronde River to reduce chance of sediment reaching the River.

Establishment of vegetation in disturbed area will take place using potted trees planted with the excavator and native grass seeding.

The two existing groups of trees in the project area will be protected during construction work.

After project completion, waterbars will be installed on the existing access road.

Monitoring of plant survival, fish passage, and stream channel stability will occur for five years after project completion.

Residual Impacts Residual impacts would be limited to bare soil in the project area that could contribute a negligible amount of sediment to the Grande Ronde until the vegetation that will be planted with this project is established.

Persons/Agencies Consulted:

This project is included in the Lower Grande Ronde Biological Assessment (BA). This BA includes BLM and U.S. Forest Service projects within the Lower Grande Ronde Subbasin. The National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) are currently reviewing the BA and concurrence is

expected shortly. Any terms and conditions that are required other than those already included in the BA will be followed if the project is implemented.

The Oregon Department of Fish and Wildlife(ODFW) has also been contacted. Personnel from ODFW and BLM visited the site during planning. Permits that are required from the Division of State Lands (DSL) will first be reviewed by ODFW to ensure that any fish passage concerns are addressed as well as compliance with in-stream work windows. As well as the permit from the DSL, a permit is also required from the U.S. Army Corps of Engineers (COE). These permits must be obtained before any work can be started on this project.

As mentioned previously, this is a joint project with the Grande Ronde Model Watershed Project (GRMWP) and the Wallowa County Public Works Department. The project was submitted to the GRMWP for consideration and was reviewed by their technical committee and rated as high to fund. The project has also passed the GRMWP board of directors for funding.

Don Bryson of the Nez Perce Tribe was also contacted. Mr. Bryson indicated that the Tribe is also working on improving fish passage on three additional culverts on Grouse Creek upstream of the BLM project. These culverts are all located on private land from one to three miles upstream of the proposed project in the State of Washington.

Preparer(s): s/Todd Kuck

Date: April 12, 2001

Environmental Coordinator: s/Ted Davis

Date: April 12, 2001

**GROUSE CREEK STREAM RESTORATION
FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT #OR-035-01-06**

The attached Environmental Assessment (EA) contains a description of the proposed action, an analysis of expected impacts on land and resources, and mitigating measures to reduce those impacts.

I have evaluated the effects of the proposed action, together with the proposed mitigating measures, against the tests of significance found at 40 CFR 1508.27. I have determined that:

1. The proposed action would cause no significant impacts, either beneficial or adverse. All impacts would be minimal; most would be of short duration.
2. The proposed action would have no effect on public health or safety.
3. The proposed action would not affect unique characteristics of the geographic area.
4. The proposed action would have no controversial effects.
5. The proposed action would have no uncertain effects and would not involve unique or unknown risks.
6. The proposed action is a routine and common project and does not establish a precedent for future actions.
7. The proposed action is not related to any other action being considered by BLM.
8. The proposed action would have no effect to any property listed on or eligible for listing on the National Register of Historic Places.
9. The proposed action would not adversely affect an endangered or threatened species, or any habitat critical to an endangered or threatened species.
10. The proposed action does not violate any law or requirement imposed for the protection of the environment.

Therefore, I have determined that the proposed action, with the proposed mitigating measures, would not have any significant impacts on the human environment, and that an Environmental Impact Statement is not required.

S/Ted Davis
Field Manager

April 12, 2001
Date

